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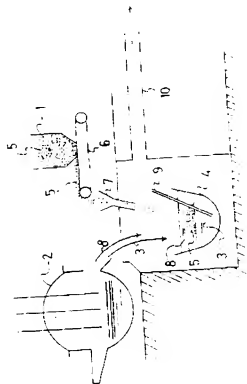
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TITLE : TREATMENT OF STEEL MAKING  
DUST, SLUDGE OR THE LIKE



ABSTRACT : PURPOSE: To perform inexpensively a pollution-free treatment of steel making sludge, dust or the like by placing a mixture composed of the steel making sludge, dust or the like and auxiliary fuel on the molten slag surface in a slag pan, dropping molten slag of a high temp. onto said surface from above and melting the dust or the like.

CONSTITUTION: Molten slag 3 of a high temp. generated from a steel making furnace 2 is received in a slag pan 4 and a mixture 5 composed of dust 5 and fuel such as coke is charged 7 from hopper 1 into said pan. The mixture 5 is ignited by the sensible heat of the molten slag 3 to preheat the dust 5 to a red hot state. Molten slag 8 of a high temp. generated in the succeeding operation of the furnace 2 is then charged into said pan 4 to melt the dust 5 into the molten slag. The stirring in the pan 4 by the bubbling, etc. of the high-pressure gas blown through a lance 9 for said gas is effective in this case, by which the dust is thoroughly made into slag and at the same time, harmful heavy metals such as Zn, Pb, Cd, etc. are reduced and evaporated. The heavy metals evaporated partly in the red hot preheating stage of the dust and the heavy metals evaporated in the stage of reaction with the molten slag are sucked and collected by a dust collector through a duct 10 and are utilized as a non-ferrous raw material for smelting.

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